

Algebraic Concepts  
Lesson 17: Functions  
Math for Standards

Name \_\_\_\_\_

Date \_\_\_\_\_

*EQ: What are functions and how are they used?*

There are \_\_\_\_\_ quadrants on the coordinate plane.

A function is a \_\_\_\_\_ between two values  
(the independent and dependent variables).

The \_\_\_\_\_ variable is determined by the independent variable.

For each \_\_\_\_\_ variable, there will be only one dependent  
variable that matches up to it.

If you graph the points, you should not be able to draw a \_\_\_\_\_  
through more than one point.

The \_\_\_\_\_ is the possible values for the independent variable.

The \_\_\_\_\_ is the possible values for the dependent variable.

Functions can be described as a \_\_\_\_\_, set of \_\_\_\_\_,  
\_\_\_\_\_, or \_\_\_\_\_.

Example 1: Write the domain and range for each set of data. Then rewrite each relation as a set of ordered pairs or in a table.

a.

$x$	$y$
12	-8
-9	6
4	13
9	7

b.

$x$	$y$
3	4
4	5
5	6
6	7

Example 1 (continued): Write the domain and range for each set of data. Then rewrite each relation as a set of ordered pairs or in a table.

c.

$x$	$y$
-3	7
8	6
-3	9
-1	4

d.  $\{(3, 6), (9, 4), (-2, 8), (-2, 4)\}$

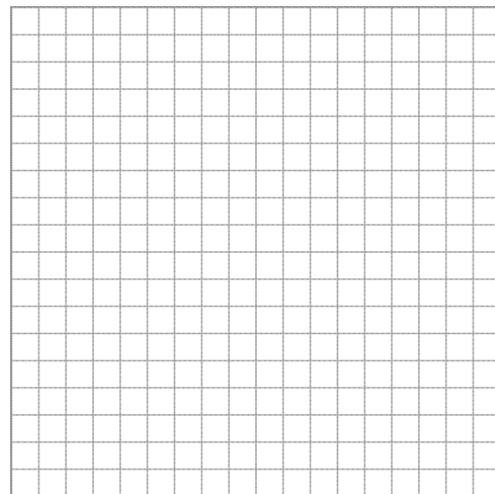
e.  $\{(-1, 12), (-7, 5), (1, 7), (8, 1)\}$

f.  $\{(-11, 3), (3, 11), (11, 4), (-11, 4)\}$

Example 2: Use the data to draw a graph. Then determine whether the relation is a function or not and explain your reasoning. If the relation is a function, explain whether it would make sense to connect the data points with a line.

a.

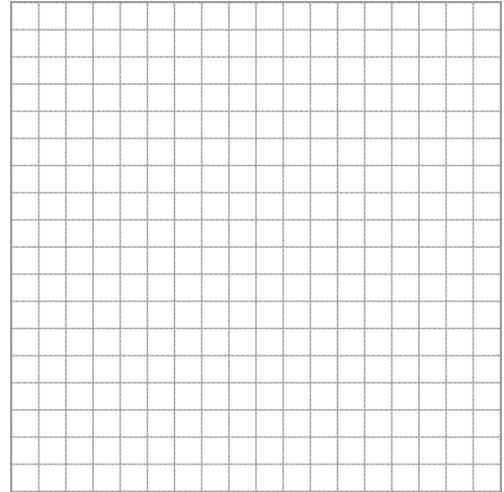
Year	Cost of a Bus Ride
1975	\$0.35
1980	\$0.50
1985	\$0.75
1990	\$0.90
1995	\$1.15



Example 2 (continued): Use the data to draw a graph. Then determine whether the relation is a function or not and explain your reasoning. If the relation is a function, explain whether it would make sense to connect the data points with a line.

b.

Time of Day	Temperature in °F
8:00 AM	17
9:00 AM	19
10:00 AM	23
11:00 AM	24
12:00 PM	24
1:00 PM	26



Example 3: Sketch two graphs such that the first is a function and the second is not a function.

Function:

Not a function: